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Is Presidential Compensation Linked to Performance of Ontario's Colleges?

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ABSTRACT

This paper examines relationships between Presidential salaries and key performance indicators for Community Colleges in Ontario, Canada. This paper aims to determine the impact College performance has on executive salary levels. This study uses the annual *Sunshine List* to discern three years of data for Presidential salaries, up to and including the wage freeze in 2012, for a population of 21 colleges. Key performance indicators (KPIs) from surveys conducted by *Colleges Ontario* between 2010 and 2013, were used to assess lagged salary impacts. A number of linear regressions were conducted, with the dependent variable of most interest being Presidential compensation, and independent variables spanning the various KPIs, institutional size, full-time enrollment, region and the tenured years of the executive. Initially, compensation was found to negatively correlate with graduation rates, whereby compensation increases when graduation rates decrease. Through a Sobel-Goodman test, it was later discerned both were mediated by enrolment figures. Hence, a null hypothesis was found; specifically, that Presidential compensation does not significantly influence the performance of a college. With Ontario's Colleges actively consulting the public on College CEO compensation, this paper provides an important foundation for those considering pay-per-performance mechanisms. To increase school performance, College boards may find their efforts limited should they only focus on the President. Above all, this paper highlights the need that CEOs of higher educational institutions may, through engagement and leading faculty, academic programming and research, indirectly enhance college performance, including student

satisfaction. To the best of the author's knowledge, this is the first study of its kind focussed on Colleges, and builds of only one other study to consider the nature of performance-based compensation in Ontario's broader public sector empirically.

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INTRODUCTION

Public interest of broader public sector executive compensation in Ontario, is increasing alongside its debt. In general, public interest in the salaries of government employees surges when governments and their agencies underperform. (Bell and Van Reenen, 2016) Since Ontario is the most indebted subnational state in the world, (Eisen et. al, 2016) it follows that CEOs of Ontario para-governmental organizations, such as *HydroOne*, (Financial Post, 2016) *Western University* (CBC, 2015) and *Ontario Power Generation*, (Toronto Star, 2017) continue to garner significant press coverage. The annual release of the *Sunshine List* only further ignites this public interest, which as enacted nearly two decades ago, serves to make salaries of publically-funded positons over \$100,000 known to civil society. (Ontario, 2015a) This interest has resulted in strong momentum of performance-based compensation.

In response to public skepticism, the province has taken great interest in attempting to reform their models of executive compensation with presumable intentions of balancing public accountability with the assurance of low turn-over and high expertise. In late 2012, a wage freeze on senior executive compensation was implemented for those in the broader public sector, (Ontario, 2012) which included College Presidents, and lasted until January 2017. Further, in September 2016, the Wynne administration implemented a “new framework for broader public sector executive compensation [...]” which, in effect, adds requirements under the *Public Sector Executive Compensation Act, 2014*, to cap payments at the 50th percentile to appropriate competitors in the public sector. (Ontario, 2016) It is on the note of competitor appropriation that has sparked interesting proposals of executive compensation reforms.

With salaries being recently unfrozen, College Presidents took to the press in 2017 to argue that, since they view their role as the same to Presidents of universities, their salaries should be synchronous to these institutions. (Toronto Star, 2017) This would, if implemented, have led to increases by as much as 42%. Though eventually demoted by the Government, (CBC, 2017) it brought about an ongoing consultation process on College top-executive rates of pay. (Ontario, 2016b) With several mentions of 'performance' in the proposed legislation of executive compensation, (Ibid) it is clear the dimension of performance-based salaries are being officially considered. Significant rhetoric of the term 'performance' appears in its new framework of executive compensation formulation, (Ontario, 2016) and thereby suggests a conceptual link between performance and compensation, and that the President would have influence over the performance of a College. However, the empirical relationships of these concepts, remains unknown for Ontario's Colleges.

Accordingly, this paper attempts to understand practical considerations in assessing the complexity, validity and prospects of performance-based pay for Ontario College executives, by situating performance-based compensation within a framework, and an empirical analysis of the state of performance integration to wages prior to the legislation's enactment. To accomplish its aims, this paper draws on methodologies developed in existing research between non-profit performance and executive compensation in Ontario to discern the relationship between key performance indicators (KPIs) and Presidential compensation for Ontario's publically-funded Colleges. In specific, this paper addresses three preeminent questions within such frame (1) *Are Presidential salaries reflective Institutional KPIs of Ontario's Colleges?* (2) *Are KPIs*

impacted by the salary of the College President? and (3) Does Presidential compensation mediate between KPI variance in Colleges?

Existing literature on performance-based compensation has been mainly directed to the private sector, though a growing number of studies also concern themselves with para-governmental organizations. Most evidence suggests weak relationships between efforts of the President and firm performance, thus implies challenges in design for performance-based compensation. (Carpenter and Sanders, 2002; Rago, 1996) Conversely, there are also many studies advancing that the President greatly impacts firm performance, which conclude suggesting the success of performance-based systems depends on their implementation. (Noe, 2006; Ballou, 2001; O'Donnell, 1998; Reilly, 2003; Rappaport, 1998)

The most recent study specifically concerning performance and compensation of Ontario College executives, was in the year of 2000, (Alexander, 2000) nearly as old as the *Sunshine List* itself. Though not empirically based, it provides a strong comparative model for conceptually understanding performance and funding for Colleges and their executives. He notes that, since 1990, performance-based accountability measures have been implemented on College Presidents at increasing levels, furthering a more “utilitarian view” of higher education. While not explicit, the concept whereby he refers to, is that of New Public Management (NPM), and specifically, public human resource management reform. Further, Alexander provides a comprehensive operationalization of College performance, as student, employer and graduate satisfaction, graduate employment rates, and graduation rates. However, the links Alexander makes are those of rhetoric in legislation, and not of actual, empirical, association. There is one previous

study, however, which quantitatively examined broader public sector salaries in Ontario, focussed on Hospital executives. Akingbola and van den Berg (2015) ran several linear regressions and a Sobel-Goodman test, finding no link between compensation of the CEO and patient satisfaction. Thus, there are currently no cross-disciplinary templates for different industries, given the great difference in measures of organizational success between industries, organizational sizes and charitable, for- and non-profit orientation. Hence, the gap this research attempts to bridge that of relationships between Presidential compensation and outputs, for Ontario's public Colleges.

Extending on the work of Akingbola and van den Berg, this study attempts to fill the gap in literature of an empirical link between College Presidents and performance by conducting several linear regressions and a mediation test. In addition, it conducts an extra step-wise regression for each performance indicator to gauge their main drivers. Given Alexander's paper on performance measures in Colleges, this paper employs his classification to discern variables of College performance. Altogether, this research contributes to scholarship for it provides insight to an emerging concept of executive compensation within Canadian public administration, and could be used in future comparative analysis of the impacts of the newly instituted policy and could further refine the direction of optimal compensation for College Presidents.

FRAMEWORK

Studies on College Presidential compensation have generally been conducted at the private-sector firm level, generally linking higher salaries to strength in business strategies, (Gordon and Fisher, 2014; Abor, 2015) and was identified as a primary indicator to firm innovation. (cite need). The concept of performance-based pay a key pillar to public human resource management reforms (PHRMR), which is herein argued to be situated at the intersection of scientific management and New Public Management (NPM). Underlying its philosophy, a desire to balance accountability, achieve effectiveness, and minimize turn-over thus is focussed on applying a market oriented approach to achieve efficiency. Studies of scientific management also highlight the importance of the President in organizations. They discern the POLC framework, which creates firm leaders, like College Presidents, having a role in planning, organizing, leading and controlling the measures of a firm and thereby have influence on outputs.

Theoretical Underpinnings

Agency Theory

In 1776, famous economist Adam Smith noted that when firms are controlled by others than their owners, the goals of the firm will fall, (Smith, 1776; Laffont and Martimort, 2009) and thereby he provides a foundation for what would become the principal-agent model of Agency Theory. This concept refers to agents (management) enabled to make decisions for principals (owners), and assumes each actor would act in self-interest, and with information asymmetry, not get noticed for so doing thereby comprising a moral hazard. (Frederickson, 2015) In political studies, this has been applied on voters being the principal, and a politician assuming agency. Likewise, in public administration, it

generally takes the shape of the politician as the principal and the bureaucrat as the agent. (Miller, 2005)

Within context of non-profit Colleges, the paradigm would take three different approaches. First, positions principals as politicians and the President, where politicians, in their capacity to pass legislation, would be the principals. Under this light, it could be seen that the principal is wanting maximum results from the agent, whilst paying lowest cost. This model has not yet been made explicit in any literature, for most studies concern it within two other general models, which could compliment that of the first Botje, Klazinga, & Wagner (2013) apply this theory to position Boards of Directors as the principal and Institutional CEOs as the agent, for Boards of Directors are generally the highest official authority in Colleges and are to whom the CEO reports. Under this model, College Boards of Directors would be assumed to understand their guidelines and enabled to monitor the organizational measures of success effectively, holding the CEO to account. The third rendition of this theory places the President as the principal and their subordinates as agents within the next hierarchical level. (Zeckhauser and Prat, 1985) The executive would thereby direct staff towards measures, with staff assuming self-interest not realized because of differences in expertise between the two actors. Thus, it can be predicted that, theoretically, public sector executives would experience more motivation to impact their College with self-interest in salary aligned with institutional goals.

Graduate success rates are vital to Colleges, and under the principal-agent model, would have its achievement at the ultimate responsibility of the College President. This was the perspective taken by the only other study comparing outputs against executive compensation in Ontario. In 2013, Akingbola and van den Berg from Lakehead University

(2015) studied the impact of Hospital CEO compensation on patient satisfaction. Finding a null result after accounting for mediation, this study highlights the need for examining how CEOs could indirectly impact outcomes and suggests directors looking to maximize satisfaction will not achieve their aims through CEO compensation. This study uses Akingbola and van den Berg's analysis as grounding for its methodology, given its results-orientation in design, development and discussion.

Scientific Management

In general, performance-based pay can be situated within the broader framework of scientific management, a discipline founded on applications of effectiveness-maximizing measures. (Frederickson, 2015; Taylor, 2004) Research has already found a strong role of scientific management in the ideation and implementation of incentive bonuses, based on performance at the firm level. (Armstrong, 2010) This also holds true in the case of performance-based executive compensation, as base pay would be in place with predetermined incentives paid in relation to the outcomes of their duties. The surrounding idea to this end would therefore be a desire to exceed targets, however these targets would have to be tangible and aligned to the years of which they contribute. If efforts from the President are not realized until the year following, or even the one following that, it may be more challenging to attribute ideas and their implementation towards the years they impact. However, there can be many measurable and generally effective methods for mitigating for this, such as running experiments to account for multi-year effects of specific policies independent of other factors shown to have linkages. Compensation, therefore, would be made on a more consistent model for implementing existing ideas. However, when new initiatives are beginning, it may be unreasonable for

payments to be made for initiatives bearing impact. This lends itself to limitations of performance based compensation, whereby long-term improvement initiatives may be less hyped by executives because their compensation would not provide for multi-year compensation, and that these hyped ideas would occur earlier in their tenure. However, reputations would still provide incentive to carry these indicatives forward, as Jonathan Haidt (2012) claims such concept drives human behaviour. Though this would not be impacted by performance-based compensation and be treated as equal to today's environment.

New Public Management

NPM is the pinnacle concept for characterizing worldwide reforms in policy towards concepts of the private sector. Frederickson (2015) outlines three main reforms of NPM, being a further emphasis on results-orientation, marketization and accountability in public administration. For the public executive, performance-based pay could be their impact from NPM. (Gagnon, 2016) First, by design, it is mostly focussed on results as the President would theoretically be pressured to increase their College's performance to increase their paycheque. Second, by aligning interests of the College with the President, the Government is hence using the market to rationally motivate the President to produce more results because their pay cheque could be enhanced. It is noted that this basis in particular, however, is limited for assuming all actors as rational. Lastly, NPM moves towards accountability, for which, public scrutiny of a performance-based executive would have greater trust in their public servants working for the greater good, as opposed to their individual interests. In fact, salary disclosures are generally rooted in "accountability" measures of NPM. (Bowman, 2013) Performance-based pay is could be a rendition of

NPM in regards to compensation drawing into it, perspectives of agency and scientific management theories, all encapsulated in public human resources management reform.

Ontario has been long publicized for its integration of NPM reforms, ever since the days of its Premier Mike Harris and his “common sense revolution.” (Clark, 2015) This imitative has since been generalized to be a collection of NPM-oriented legislation. This resulted in the size of government being shrunk to a manageable level, school funding equalized across the province, and many responsibilities transferred to Municipalities. A common theme to this movement was to be more business-like with efficiency maximized. (Ibid) Performance-based pay fits this paradigm, as it aims to reduce costs of executive compensation. Further, it fits into the frame of scientific management, as it is theoretically most advantages one to maximize the potential of their organization when salaries are reflected on so doing.

To date, there has only been one study to concern itself with performance-based compensation in the Canadian context. Atkinson et. al in 2014, through interviews, examined why the Canadian government was implementing performance-based compensation to senior public servants. From their research, they characterize three waves of reasons for governments doing so, namely ‘aggressive,’ ‘passive,’ and ‘reluctant.’ They conclude noting “no [doubt of] the enthusiasm” for performance-based compensation regimes in other areas of government, and suggest there to be much more evidence until it becomes more wide-spread. Moreover, they also link it to New public management in attempts to commit to strengthen executive control, a part of Aucoin’s (2008) definition of NPM.

Conceptual Framework

Performance-Based Compensation

Academia is split on its support for performance-based compensation. On one hand, it is argued to increase the motivation of the President to contribute to the organization, given their salaries would be determined by the success of their efforts. (Noe, 2006; Ballou, 2001; O'Donnell, 1998; Reilly, 2003; Rappaport, 1998) In addition, employee engagement has been identified (Noe, 2006) as a factor dictating success of Performance-based programs, and this is generally positive in Canada. (Hickey and Bennett, 2014) However, others argue that, while this is be true, such mechanism of compensation also has "hidden costs" from giving too much for performance, that otherwise would have been accomplished. (Weibel et. al, 2010) This criticism, however, should not discount the idea entirely, as well-designed and implemented performance oriented compensation schemes, with the correct indicators and levels of success, could see positive impact of this regime to their organizations.

Perry, Egbers and Jun (2009) recently found there are several variables to the success of these reforms. In particular, the authors concluded (a) rates of base and contingency pay, (b) group and individualized incentive mix, and "most importantly" (c) implementation. To this end, they argue most public performance-related pay schemes in the United States, at the time of their research, were not sufficiently funded nor were experiments wide enough. While they did not focus on executive compensation in specific, their measures of indicators for performance-based compensation are important when crafting these schemes.

For non-profit organizations, Boards of Directors are the highest body to whom the President reports. (Barton, 2005) Research into Boards of Directors between non- and for-profit organizations in Canada found boards in both sectors having equal influence to the implementation of strategies. (Bradshaw et. al, 1992) Thus, regarding the role of the Board to determine executive performance would be important. Ben-Ner and Ren (2011) concluded performance-based compensation regimes would result in an increase to the willingness of the executive to exceed the Board's expectation.

By examining the relationships of KPIs in Ontario Colleges to their Presidential compensation, from both impact models, this paper hopes to shed light on the complexity on the implementation of performance based compensation in Ontario's Colleges. Further, based on its findings, it hopes to conclude on providing a rational way to do so, or not to do so, given that this is a contented area of public administration.

Defining Performance in the Context of Publically-Funded Colleges in Ontario

When pondering 'performance,' there are a several concepts to consider when applying the frameworks of executive compensation to non-profit organizations, and specifically to Colleges? First, as non-profits, the basis for evaluation should be the criteria of their mandates and not the financial performance of the entity. (Akingbola, 2012; Druker, 2004) In the context of Hospitals, this translated to patient satisfaction. (Akingbola and van den Berg, 2015) Likewise, for most Colleges, this means being assessed on grounds of outputs to graduate success.

Outcomes of graduates are central to the mission of any educational institution, including Colleges, as they form the purpose of the Institute. Furthermore, achieving these outcomes in terms of graduate, employment and satisfaction rates need to be a

top-priority of Ontario's Colleges. However, there are still barriers of access that exist in addition to a need for those to stay in programs. This general operationalization is consistent with other research examining outcomes of career-oriented Colleges. (Fike and Fike, 2008; Alexander, 2000)

One study operationalizing graduate success to conceptualize 'student success,' has been one conducted on American community Colleges, which given their career-focussed short-term study offerings, compare to Canadian Colleges quite well. Dowd (2005) separates outcomes from inputs drawing on a number of criteria, including (a) completion rates, (b) credit success rates (c) performance in transferred institutions (c) student satisfaction (d) student goal alignment (e) course retention (f) developmental rates (g) field studies (h) career status (i) employment ratings and (j) grade distribution. Further, Dowd factors in a range of "peer selection criteria," including budgets, service area populations, unemployment rates, median incomes and minority representation. These factors are noted by Colleges Ontario to potentially distort cross-institutional studies on reflectiveness. (Colleges Ontario, 2010, 2011, 2012, 2013) Lastly, things related to enrollment, design, and efficiency are categorized as inputs. Under this labelling, it could be discerned as to how evaluation of colleges could be done for 'performance,' when accounting for specified controls.

Ontario's Legislation

The term 'performance' appears rather frequently in the *Broader Public Sector Executive Compensation Act, 2014*, however was not explicitly defined in that document. In its accompanying "*Framework Guide*," (Ontario, 2016) performance-based compensation is defined as being "any payments provided to reward the attainment of

pre-determined performance goals and may include incentive pay, merit pay, variable pay, etc.” (Ibid) Based on this guide, several Ontario Colleges are now seeking public consultation to its specific formula for the compensation of their lead executive. Though, the term itself was not operationalized for the Colleges sector in such guide, and given that the performance of colleges should be assessed on non-financial indicators of its mandate, the metrics of each College’s mandate could be synchronous to ‘performance.’

Each college has a strategic mandate from the Province of Ontario to fulfil, and separate system-wide variables along five key themes. These include (i) key areas of differentiation, (ii) alignment with differentiation in policy (iii) aspirations (iv) enrollment and (v) financial sustainability. When reviewing each of the themes for non-financial system-wide and graduate-centered variables in strategic mandates of each of the Colleges, several indicators were discerned. These metrics are rates of (a) graduate employment (b) employer satisfaction (c) graduate employment in a related job, (d) graduation, (e) student satisfaction, (f) retention, (g) co-op participation, (h) proportions of International, Aboriginal, francophone, first generation and disabled students (i) number of college graduates in university programs and (j) proportions of enrollment in occupational clusters and credentials. Given the wide-range of criteria, it is also important to note institutional strengths would depend on the strength of emphasis placed on each.

Each college generally leads provincially and a number of niche areas, and also responds to regional demands. Colleges in Northern regions, for example, are situated in greatly different employment contexts than those in the South with average earnings being much less than elsewhere. Northern communities have careers in different sectors than their Southern counterparts such as natural resources, faces lower levels of

educational attainment compared to other areas leading to an increase in first-generation students, and most of all, has a significantly higher number of Indigenous students it would need to equip with education. (Bennett and Anuik, 2014) Given youth outmigration patterns, Thunder Bay for instance, would have to be 50% Indigenous by the year 2050 if its population were to be maintained. (Cirtwill, 2016) With such variance, clearly regional discrepancies dictate the emphasis of measurable as described in each College's strategic mandate. (see for instance, Sault College, 2014) Nonetheless, some non-regional variables could be drawn. First, size would likely dictate proportionality of clusters for it would be unreasonable for small colleges to offer the same breadth of programs as large. Further, it could be assumed that graduation, employment and satisfaction rates would, though perhaps be impacted by either of the above, be given similar significance irrespective of size and region.

METHODOLOGY

Samples and Data

For Presidential compensation levels, this study uses the *Ontario Public Sector Salary* database, commonly referred to as the '*Sunshine List*,' released under the *Public Sector Salary Disclosure Act, 1996*. Several organizations are bound to report salaries of their staff earning \$100,000 or more to this database, including government Ministries, agencies and organizations based on public funding from the provincial government. (Ontario, 1996) This database was accessed separately for each year, and downloaded directly from the Ontario Ministry of Finance website. To account for inflation, this study adjusted each salary to constant 2010 Canadian dollars.

To measure College performance, statistics were taken from *Colleges Ontario*, an organization established to advocate for Ontario's twenty-four provincially-funded Colleges. (Colleges Ontario, 2015) Measures were observed from the Outcomes section of the website, and recorded from the English PDF files of the *Key Performance Indicators Survey Results*, for each year. These statistics are released after one year of the populations being surveyed. This survey, as mandated by the Government of Ontario, asked several questions to Ontario College students and recent graduates, to assess their performance of such institutions in relation to rates of graduation and employment, and graduate, student and employer satisfaction. This survey is commissioned by *Colleges Ontario* to a private firm, which surveys roughly 6% of the graduates, students and employers for each college. This study specifically used five measures of this survey, recording values of graduate employment and graduation directly; and the "Very Satisfied/ Satisfied" variable for each of the three satisfaction rates. The options for each satisfaction rate were either "Very Satisfied/ Satisfied", "Neither Satisfied/ Nor Dissatisfied" and "Very Dissatisfied/ Dissatisfied."

In addition, other resources were used to examine the commencement of a President's term, discerned from searching the news in the Factiva database along the search criteria "[President name] AND [College Name]" to which, the year was recorded. Full-time equivalent (FTE) statistics were also found using publications for Colleges Ontario, whereby it revealed 'Funded FTE students' as a measure to calculate all full time plus pro-rated part-time students with funding. (Colleges Ontario, 2010) While not representative of the entire school population, it was assumed that the percentage of funded students to non-funded would be the same for all Colleges, and was used because

it was the only available, consistent and yearly figure available to incorporate both full- and part-time students, given the differences of this composition between Colleges. It is estimated this would indicate the class sizes and student leadership opportunities. The number of employees of a school was used as a proxy for size of institution, and operationalized as the number of employees an institution had on the Sunshine List in 2010. This data was then converted to three levels to reflect different sizes of Colleges: (1) <50 employees on the List, (2) 50-99 employees on the List and (2) 100+ employees on the list. It was assumed that all colleges would employ a proportional number of high-salary employees per its size and thus assumed equal distributions of those who earn \$100,000 across all Colleges.

This study limited its search to three years of Presidential compensation, and four years of survey results, to examine yearly impacts and legged impacts from 2009 – 2012 salaries, thereby constituting salary data from these periods, and data from 2009-2013. These years were selected because they are representative of the periods leading up to, and including the period where wages were frozen, in Ontario. This sample also excluded *La Cite Collegiate* for the high number of French-only speakers at that institution, compared to others in the province, which may have distorted results. Further, for years where Colleges had multiple Presidents in one year, both results were excluded for they would have adjusted the results given some of these Presidents only served part-years or received high executive compensation. For Colleges which transitioned Presidents, KPIs were recorded as separate lines to adjust impacts both ways. There were no publically funded Colleges with Presidential salaries less than \$100,000 during this

period, thus no Colleges were excluded by the database to determine CEO Compensation.

Research Design

This study examined the relationship between Presidential compensation and KPIs for Ontario's Colleges, with emphasis on graduation rate. For achieving such objective, this study analyzed seven linear regressions and conducted a Preacher and Hayes' Indirect test of Mediation. In the first model, the dependent variable was adjusted Presidential Compensation measured in constant 2010 Canadian dollars, for years 2010, 2011 and 2012. This was then modelled against independent variables for the number of full-time equivalent students, employees, region (north, GTA, east and southwest), year, and tenure of the President. This regression was modelled first, as an "Entered" regression and the second was done using the step-wise method, which eliminates variables one by one on the t-statistics of their coefficient estimates.

To examine if KPIs impacted Presidential compensation, a series of step-wise regressions were performed with each KPI as the dependent variable. All variables showing correlation were then recorded, along with their coefficients and the strength of the model. (Adjusted R^2). For all of those deemed to have adjusted Prudential compensation as a factor, further analysis was conducted in the subsequent models. As Graduation Rate was shown to be impacted, two models then followed, with such as the dependent variable and Presidential Compensation, adjusted for inflation, as an independent variable. To see variance in predictive strength and variable indications, a model then proceeded to exclude adjusted compensation from the model altogether.

Both models were repeated using the step-wise method. Collectively, these models provide for an overview of impacts of compensation on graduation rates with controls.

The fifth model was to determine main effects of compensation on KPIs of that period, and the one previous. The hypothesis was that the President would be compensated for the performance of the year previous, instead of the one current. Accordingly, Presidential Compensation lagged by one year, was the dependent variable, and the independent and control variables remain the same from the previous models.

A Preacher and Hayes' Indirect Mediation test was later conducted to examine if, based on the results, the compensation of the College President was a mediator between the variables predicting graduation rates, and graduation rates. This test was conducted, by installing and running a regression using the plugin macro, as found on their website (Preacher and Hayes, 2002). The general formula for the indirect effect is:

$$\text{Total Effect} = \text{Direct} + \text{Indirect}; \text{ or}$$

$$c = c' + a*b; \text{ or}$$

$$S_b = \sqrt{b^2 s_a^2 + a^2 s_b^2}$$

which builds from Sobel's method of approximating standard errors. In effect, this method resembles that of "bootstrapping" which tests indirect effects by resampling and replacing many times, from which, the indirect effect is later computed and distributed. (Ibid) Though not discerning the actual indirect effect, it is helpful for identifying significance of these relationships. Preacher and Hayes are the scholars who have written the code for SPSS, for which their model was installed and ran in this study that previous models

suggested Presidential Salaries to have correlate to in alongside other variables when Presidential salaries were excluded.

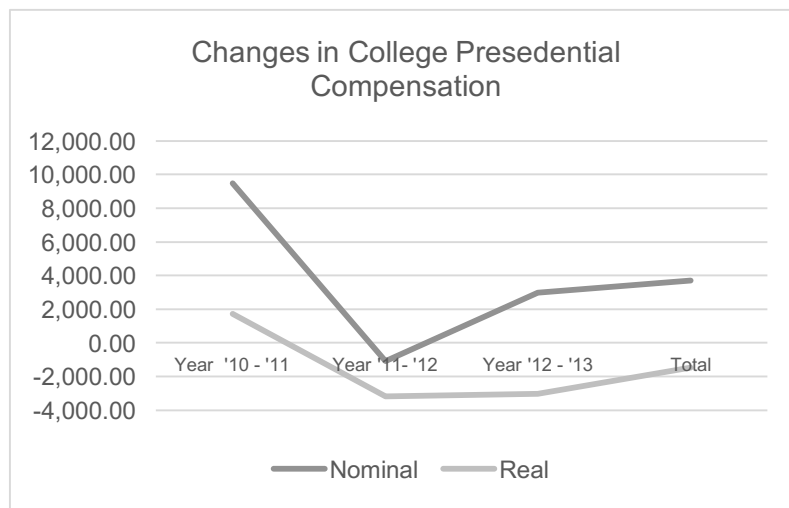
Descriptive Statistics

This sample consisted of 110 salaries, each representing a College President for a full year, with 140 entries of performance indicators, given salaries were frozen in 2012 and thus not recorded. Twenty-eight separate executives were observed in total between 2010 and 2013. Five of the Colleges were in the North, four in the East, four in Southwestern Ontario and the eight in the Greater Toronto Area. Delving further, five Colleges were classified as “small,” which had under 50 people on the *Sunshine List*. It is notable that these Colleges, with one exception, were from Northern Ontario. Three were greater than 150 employees, and included in the category for 100+ thus making the variable ordinal, but not interval. From this, the number of employees on the *Sunshine List* ranged from 28 to 172, with mean at 97.71 and median at 99.5. This variable tested to not have statistically skewed distribution.

The frequency distribution of the number of full-time equivalent students, which includes all full- and pro-rated part-time funded students, was positively skewed (2.44), and ranged from 1,887 at Boreal to 22,274 at Humber. The mean number of students is 9,303.83. Likewise, Presidential Compensation was also positively skewed (2.90513), with salaries ranging from \$200,740.54 to \$417,071.00. The mean compensation for a College President in Ontario in the sample was \$285,325.03 adjusted to 2010 dollars.

The natural logarithm of annual Presidential compensation tested as being most close to a normal distribution of such. Other studies (Akingbola and van den Berg, 2015; Ferri and Maher, 2013; Perry, 2001) also use a natural logarithm for executive

compensations. The natural logarithm of the number of full time students was also determined to be the most normal distribution of such. All KPIs were also computed to their natural logarithms for the generation of most normal distributions. All KPIs were correlated against each other in each of the years to determine if a composite variable would be appropriate. However, there was no uniformity among the indicators, and thus did not employ a variable to that end. These KPIs were individually correlated against Adjusted compensation without accounting for controls, and only graduation and employment rates were significant, at .000 and .025 respectively. It is noted that the standard deviation of all KPIs between the years were relatively low, with employer and graduate satisfaction in the 2% range, graduate employment and student satisfaction in the 3% range and graduation levels in the 4% range, at 4.58%.



Each President had the change in salary calculated, excluding part-years to not skew results. As shown in *Figure 1*, changes in executive compensation, contra popular opinion,

Figure 1: Chart Depicting Real vs. Nominal Changes to Presidential Compensation

remained relatively flat 2011 to 2013. Accounting for inflation, salaries have seen a real increase of \$1,734,51 from 2010 to 2011 and since, has decreased in years leading up to the wage freeze.

RESULTS

1. Are Presidential salaries reflective Institutional KPIs of Ontario's Colleges?

Table 1: Standard Coefficients of Linear Regressions of the Natural Logarithm of Adjusted Annual Presidential Compensation on Selected Independent Variables for Ontario Colleges, 2009-13		
	MODEL I	MODEL II
<i>(Constant)</i>		
<i>Region</i>		
<i>GTA (Constant)</i>		
<i>North</i>	-.368*	
<i>East</i>	-.251*	
<i>Southwest</i>	-.086	
<i>Full Time Equivalent Enrollment</i>	.530**	.616**
<i>Key Performance Indicators</i>		
<i>Graduate Employment</i>	-.037	
<i>Graduation</i>	-.184**	-.203*
<i>Graduate Satisfaction</i>	.288*	
<i>Employment Satisfaction</i>	.028	
<i>Student Satisfaction</i>	-.074	
<i>Year-To-Year Differences</i>	-.133	
<i>Institutional Size</i>		
<i>Large (Constant)</i>		
<i>Medium</i>	.032	
<i>Small</i>	.048	
* $P \leq .05$	Adj. $R^2 = .531$	Adj. $R^2 = .480$
** $P \leq .01$	Sig. = .000	Sig. = .000

At first, it appears Presidential compensation is significantly reflective the graduation rate KPI with a negative correlation. Without accounting for any controls, two KPIs yielded significant bivariate correlations, namely the graduation (.00) and employment rate (.028). Model I in Table 1 shows the results of a linear regression of adjusted Presidential Compensation, in constant 2010 Canadian dollars, against several independent variables, with the KPIs as those of interest and the remainder as control variables. This Model suggests it accounts for 53.1% (Adjusted R^2) of the variation in compensation of Presidential salaries, to which region and the number of students are significant controls and two KPIs with a negative relationship with graduation rates, and positively with graduate satisfaction.

Also on Table 1, Model II depicts a step-wise regression of Model I, and it proposes it accounts for just slightly less of the variation at 44.8% (R^2). Model II in Table 1 suggests a slightly different relationship. Model II is a stepwise of Model I, and is said to account for slightly less of the variation (48%). Nonetheless, it suggests some variables which impact compensation, namely full-time enrollment of the institution, their graduation rate and the number of years a President. Interestingly, some independent variables did not impact compensation to significant levels. Region, rates of graduate employment, graduate satisfaction, employment satisfaction, year-to-year effects and institutional size were not individually significant, and carried only a 5.1% decrease in variance. Hence, Model I and II position College Presidential Compensation as impacted most by the number of full-time-equivalent students, the number of a President and negatively with the Institutions graduation rate. This finding is interesting, as it is the only KPI that was significantly impacted by Presidential compensation.

Table 2: Standard Coefficients of Linear Regression of the Natural Logarithm of Legged Adjusted Annual Presidential Compensation on Selected Independent Variables for Ontario Colleges, 2009-13

	MODEL III	MODEL IV
<i>(Constant)</i>		
<i>Region</i>		
<i>GTA (Constant)</i>		
<i>Northern Ontario</i>	-.277	
<i>Eastern Ontario</i>	-.221*	
<i>Southwestern Ontario</i>	-.051	
<i>FTE Enrollment</i>	.170	.602**
<i>Key Performance Indicators</i>		
<i>Graduate Employment</i>	-.053	
<i>Graduation</i>	-.177*	-.184*
<i>Graduate Satisfaction</i>	.112	
<i>Employer Satisfaction</i>	-.008	
<i>Student Satisfaction</i>	.036	
<i>Year-to-year Differences</i>	-.109	
<i>Institutional Size</i>		
<i>Large (Constant)</i>		
<i>Medium</i>	-.228	
<i>Small</i>	-.349	
* $P \leq .05$	Adj. $R^2 = .492$	Adj. $R^2 = .453$
** $P \leq .01$	Sig. = .000	Sig. = .000

While Models I and II show annual graduation rates are aligned with the compensation of a College President for the same year, Models III and IV present impacts in the year preceding, accounting for a one year lag in the results. Model III suggests it is representative of 49.2% of the variance in compensation. (Adjusted R^2) Model III does, however, not yield any statistically significant independent variables as does Model I, is a stepwise regression of Model III. This stepwise regression drops the insignificant variables, backwards and individually ending when those with $p=0.05$ are all accounted.

This Model claims to account for 45.3% of the variance in compensation, and that the main drivers of compensation are enrollment and graduation rates, with the adjusted coefficient of enrollment being similar to that in the present year, as represented in Model I, (.602, .606) and both being very significant (.000.) Further, like Models I and II, the graduation rate is presented to have a negative relationship with executive compensation. Difference between Models III and IV is just under 4% (.492 - .453) with the additional independently significant variable of being in Eastern Ontario, and collectively with variables of other controls and KPIs. In addition, changes both in real and nominal terms were correlated against their tenure, region, student enrollment and size of their college changes along with KPIs, though yielded no significant independent variable nor regression model. This shows that wage increases and decreases are not made by any formula with any identified variable in this study and thus are not made on the basis of performance. Nonetheless, these models collectively suggest lagged Presidential compensation impacts enrollment and, to a less extent, graduation rates.

2. Are KPIs impacted by the salary of the College President?

Table 3: Standard Coefficients of Linear Regressions of the Natural Logarithm of Select KPIs on Selected Independent Variables for Ontario Colleges, 2009-13			
	<i>Adj. R²</i>	<i>Significance</i>	<i>Standardized Coefficient</i>
<i>Model V</i>	.187	.000	FTE Enrollment -
<i>Graduate Employment</i>			.295**
			Eastern Ontario .274**
<i>Model VI</i>	.276	.000	FTE Enrollment -
<i>Graduate Satisfaction</i>			4.573**
			Medium Sized -3.384**
			Smaller Sized -2.295**
<i>Model VII</i>	.089	.000	Northern -.341**
<i>Employer Satisfaction</i>			
<i>Model VIII</i>	.168	.000	Eastern .380**
<i>Student Satisfaction</i>			Southwestern .262**
<i>Model IX</i>	.164	.000	Pres. Comp -4.060**
<i>Graduation</i>			Southwestern 2.033**
* $P \leq .05$			
** $P \leq .01$			

Table 3 depicts a range of models, each with the dependent variable of each model being a separate key performance indicator, and control variables of region, enrollment, size and adjusted Presidential compensation. Each Model from V to VIII were stepwise

linear regressions, which worked backwards, deleting insignificant variables independently until only those with $p \leq .05$. Mostly, Key Performance Indicators are suggested to be mainly impacted by FTE Enrollment negatively impacts graduate employment and satisfaction, and that location and size of institution play heavily on KPIs. The location within the province lead for variation in all KPIs except for graduate satisfaction, with Eastern Ontario colleges yielding more graduate employment, those in Southwestern Ontario yielding higher rates of graduation and student satisfaction from its institutions, Eastern Ontario colleges having higher rates of student satisfaction and the five colleges in the North of the province having less employer satisfaction. Lastly, the size of institution impacting graduate satisfaction, with graduates of large institutions being most satisfied, and those from medium sized institutions being least. As observed, adjusted CEO compensation remains to only be a factor in graduation rates, where the standardized coefficient is quite high at -4.060. This is investigated further in Models X through XIII in table 4, below. All other variables were insignificant. ($p > 0.05$)

Table 4: Standard Coefficients of Linear Regressions of the Natural Logarithm Graduation Rates of
on Selected Independent Variables for Ontario Colleges, 2009-13

	MODEL X	MODEL XI	MODEL XII	MODEL XIII
<i>(Constant)</i>				
<i>Region</i>				
<i>GTA (Constant)</i>				
<i>North</i>	-.150	.	.101	
<i>East</i>	-.009		.062	
<i>Southwest</i>	.155		.187	
<i>FTE Enrollment</i>	-.053		-.121	-.213*
<i>Key Performance Indicators</i>				
<i>Graduate Employment</i>	.255	.218*	.199	.203*
<i>Graduate Satisfaction</i>	.013		-.030	
<i>Employer Satisfaction</i>	-.209*		-.165	
<i>Student Satisfaction</i>	-.120		-.017	
<i>Adjusted Compensation</i>	-.330*	-.324**		
* $P \leq .05$	Adj. $R^2 = .177$	Adj. $R^2 = .166$	Adj. $R^2 = .099$	Adj. $R^2 =$
** $P \leq .01$	Sig. = .003	Sig. = .000	Sig. = 0.013	.100
				Sig. = .001

Model X through XIII show the results of various models involving the natural logarithms of graduation rates, on the natural logarithm for adjusted Presidential compensation, in constant 2010 dollars, and several controls. From the stepwise regression in Models V through IX, it was found that there was no significance between such rates and those of the size of institution. Accordingly, these controls were excluded from these Models.

Model X shows the results of a linear regression, finding only two significant variables accounting for approximately one-sixth variation in graduation rates, at 17.7%. The stepwise regression of this, being Model XI only accounts for 1.1% less, with significant variables being graduate employment and the compensation of the President. With the latter being of interest, a linear regression was then run to exclude the compensation variable to determine what else correlates to such KPI that may be related to the Presidential compensation.

Model XII shows these results, accounting for significantly less variance at only 9.9% with notably less significance, at 0.013. However, it is still below the 0.05 benchmark of significance. While no variables were found to be independently significant under this model, the stepwise regression model shows significance of graduate employment and the number of FTE students of the institution. While graduate employment rates were also found to be a factor in models inclusive of Presidential compensation, a negative relationship with the number of FTE enrollment was found to be new with the exclusion of such variable. The stepwise regression also accounts for slightly more variance at 10.0% and is more significant than the former. This is, overall, less than models X and XI, though yields a standardized coefficient of roughly one-third that of Presidential compensation. Thus, it raises a question, given Presidential compensation relies is positively related to the number of FTE students, as discerned from (1) and that graduation rates are also reliant on this variable, if Presidential compensation would play a mediating role?

3) *Does Presidential Compensation Play a Mediating Role in the variance of KPIs throughout Colleges?*

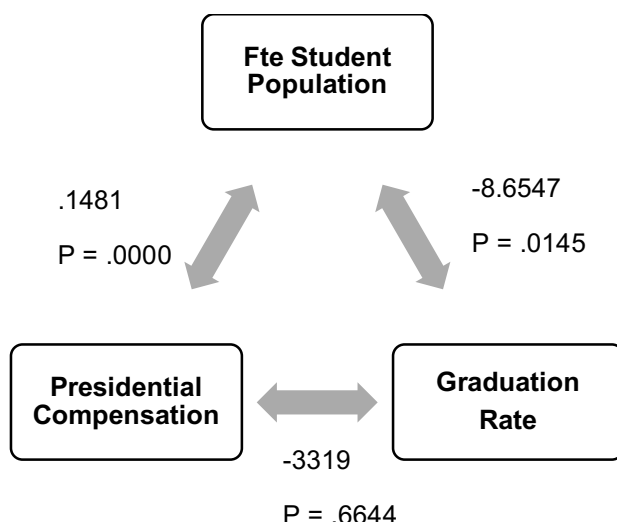


Figure 2: Sobel Test

Presidential compensation does not play any role of Presidential compensation on graduation rates in Ontario's Colleges, of any statistical significance. *Figure 2* shows a model of a Preacher-Hayes Indirect Sobel Mediation test, which, as shown, yields no significance between Presidential compensation and graduation rate, independent of FTE student population, as path c' had significance far beyond that required to have statistical significance (.6644). These tests were conducted from the macro on the author's website, installed and run in SPSS as a macro. Thus, while there does appear to be a negative link between graduation rate and FTE student population, this is not to suggest that smaller Colleges yield better graduation rates per-se, as a study breaking down specific sizes of Colleges would have to be regressed on such rate to discern the optimal size of the College for these KPIs to be achieved; though not this paper's focus.

DISCUSSION

With the new mandate of developing performance-based compensation for College Presidents, Ontario ought to base such increases, decreases and overall levels of compensation based on values that truly reflect their performance. Links between 'performance' and Presidential compensation are abundant in legislation, however there was no empirical research, before this study, which sought to examine this link. Analysis on how compensation levels, and changes to them, are currently set and how KPIs are impacted by Presidential salaries were both unknown prior to this research. Thus, this research contributes two things to scholarship, namely it provides a framework to understand performance-based Presidential compensation for Ontario's Colleges, and analyzes the empirical link between Presidential compensation and KPIs before enactment of the wage freeze and new legislation.

Central to the mandate of Colleges are their commitments to graduate students, leading them to good jobs in their field and satisfying their students, graduates and community employers. Several studies have suggested non-profit entities not having financial indicators being relevant of its performance. (Akingbola, 2013; Mook, 2007) Instead, it is argued that effectiveness is best measured on how they achieve their mission statements, and drive value creation. Thus, college Presidents ought to be measured for their performance, on their ability to impact the proportion of their students graduate, are lead to good jobs and satisfy employers, with satisfaction at each level. While College executive salaries have risen between 2010 and 2013 nominally and a little bit in real terms, unfortunately, performance indicators have not.

The findings of this research indicate Presidential salaries of Ontario Colleges yield no reflection or legged reflection of nor impact on any key performance indicator. This is consistent with research which examined similar measures to hospital CEOs. (Akingbola and van den Berg, 2015) Together, these results suggest the role of Presidents are more far removed from the activities of the organization to have any meaningful impact, as suggested by previous scholarship. (Carpenter and Sanders, 2002; Rago, 1996) Thus, this calls into question how Presidents could impact the performance, for performance-based compensation.

This study reviewed, in detail, a seemingly negative relationship between Presidential compensation and the graduation rates, however discerned this to be based on changes to the enrolled students of an institute. These observations were made from several regression models, including many step-wise models, and a test of mediation. Each model involved natural logarithms of adjusted Presidential compensation, in constant 2010 dollars and a handful of control variables. With full time students predicting a sizable variance of both Presidential compensation and graduation rates, compensation does not mediate graduation rates. Instead of Presidential compensation and KPIs were based on a host of other measures, finding the region, size and number of students to be main predictors to such levels. Given that the compensation of the President has little bearing on KPIs, performance-based pay of College Presidents may face several challenges in its development given the nature of variance of enrollment between Ontario's Colleges.

Theoretical Implications

While previous literature yet to address compensation of College executives, it is nonetheless consistent. Akingbola and van den Berg (2015) found a similar result when in that patient satisfaction had little impact on CEO compensation for Ontario's hospitals, another part of Ontario's broader public sector. This is also consistent with other research of performance related pay. In the United states, Frumkin and Keating (2003) analyzed weather non-profit executive compensation being inconsistent with the social missions of firms, finding non-profits have weak pay-per-performance links as measured on non-financial indicators, and suggest compensation is rather based on cash flows, as measured in liquid assets and commercial revenues. This study did not consider such variables, but might explain the unaccounted for variance in Presidential compensation. Research in Europe found that pay-per-performance increased motivation of core staff and suggested other institutions adopt the model. (Anderfuhren-Biget et. al, 2010) However, before Ontario does this, they should also account for current institutional contexts, including their size, number of full time equivalent students and the region in which they are situated. While the first may seem obvious, the latter is specifically unique to Canada.

Indigenous peoples, for example, are strongly important to the further development of the Province's northern region (Cuddy and Moazzami, 2016a, 2016b, 2016c) yet face immense disadvantages in getting enrolled within higher-education in the first place. (Anuik and Bennett, 2014) The North, as this study reviewed, also faces more first-generation students than other areas of the province, as evidenced in enrollment figures from select Accountability reports. (see for instance, Fleming College, 2014; Humber

College, 2016; Sault College, 2008; Confederation College, 2014) Accordingly, specific mandates for institutions are in order, as they exist today, for those to specialize in recruitment of specific types of students along with program specializations. This study did not review the impact of these, nor changes to these, in relation to Presidential compensation. This was because of the lack in reporting consistency of the Colleges, who are to post online records for the Ministry's accountability purposes, and highlights these variables in addition to retention rates. However, not all colleges keep previous editions posted and thus lead to a discrepancy. Future research may want to account for these and changes in such levels, in relation to executive compensation, by filing Freedom of Information requests. Also, local conditions were not included in this study, which may need to be enhanced to situate a college's impact in their communities.

There are several implications of this research for which future studies may build. First, as the factors to changes in compensation are unknown within this study during this period, research may want to explore factors effecting such variance with interviews of University Board Directors. Second, as student enrollment was the most significant variable impacting both, Presidential compensation and several KPIs, future research should factor in compositions of the student body, in terms of Indigenous, disabled and first-generation status in light of these differences to asses for changes, by using the "report back" accountability reports provided by each college to the Ministry. As discussed, future research would have to obtain these reports through freedom of information requests for some years at some Colleges. Most importantly, this research provides a solid grounding for comparative analysis to occur to asses impacts of the now-

enacted legislation and the near-future changes it may see. While delivering several benefits to academia, it also has implications for those consulted on CEO compensation.

Practical Implications

To “Control, Compare and Compensate” is the model of the recommendation herein proposed for Ontario to adopt. Overall, this model will entail that all College Presidents would, in part, be paid for their contributions to improvements to the outputs they aim to achieve within their community’s context. As opposed to comparing a set number of Colleges, this model will account for all the controls as proposed by Dowd (2005) including the market, demographic and institutional context a College is located within to a specified measure. Second, based on category scores, Colleges, per ranking value, would be compared against a like set, which in turn would factor improvements made by the President year-to-year. As this would be reflected in a principal-agent model, the responsibility for an Institution’s improvement rests on the President. Compensation would thereby entail to this regard, and based solely on objective outputs more than financial, for the latter is only a throughput and not output of community Colleges in Ontario. Regional considerations are also to be factored into the comparison. For measures of ultimate success, and rank, it is proposed that Colleges should be ranked on the percentage of students that continue to Universities, given the inflation of job qualifications of the modern economy.

CONCLUSION

This research paper sought to examine the current relationship between institutional performance and executive compensation in Ontario’s publically-funded Colleges. First, a framework was discerned for the nature of performance related pay, its

momentum in public discourse, the importance of developing and implementing strong formulas, and the challenges that face it within the context of educational institutions. Second, this study provides evidence that performance has not dictated institutional, presidential compensation before enactment of frozen wages and performance-based legislation. To this end, it shows that salaries are not made on an institution's performance but rather their enrollment figures, that changes to salaries are not greatly made on regional, size nor KPI differences, and that KPIs themselves are not impacted significantly by the compensation of the President.

There are several limitations to this study. First, this study is limited to publically-funded Colleges in Ontario and does not consider the relevancy of performance-based compensation to either other publically-funded Colleges across the country nor the growing numbers of private career Colleges in Ontario. This limitation was justified, for the proposed legislation in Ontario targets these individual, and thus for its purposes, are only those who need to be included. Second, this research is constrained to three years of Presidential compensation, namely 2010, 2011 and 2012. Survey data was provided for each of these years as well as in 2013, to assess impact. Lastly, the findings are based exclusive of Presidents of La Cite due to higher levels of French-only speakers perhaps distorting results of employment rates, and those of St. Lawrence College which witnessed three separate Presidents during this time, serving part-years which would have altered results.

Altogether, this research suggests Presidential compensation is not significantly linked with key performance indicators of the institutions to which they preside, before the enactment of legislation. Instead, it is deemed that such is more strongly based on their

tenure, the location and size of their institution, in addition to presumably financially-based measures. It is possible that true performance-related pay is made for community Colleges, however such would have to account for like organizations. While a model is proposed herein, it should be taken with a need for further research to determine the specific financial variables that are accounted for, and moreover, alternative means at achieving and improving KPIs that could be started and directed by the President. Further, it is suggested that this analysis also be conducted for other publically-funded institutions in Ontario.

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